

Nucleonica comments to Version 56
28/06/2007

Free access comments II:

Searchable Database:

- 1) Remove the first tab level (Database/Forum) – as in previous versions (see fig)
→ has still to be done (s. email from 07/04/2007)
- 2) ✓Nuclide search: sorting/ordering shall be done in all pages. Thus one can go to previous/next page and keep the ordering. At the present moment time, ordering is fine on the viewed page but when going to the next one the ordering is lost.
→ The column used for ordering should be highlighted.
→ Stables or Primordial without half life: assume an infinite half life for ordering
→ Abundance and Spin are sorted as text string instead as numbers
→ Excel download: nuclides column contains many tags
→ Excel download: many values of the spin column are interpreted as a date.

- 3) Nuclide search & Datasheet & Advanced Search & Nuclide Explorer:

We defined a primordial nuclide as followed:

Primordial \equiv (half-life OR decay-mode) AND abundance

which means that any nuclide which has a defined half-life ($T_{1/2} > 0$) in the DB **or** a decay mode (even with $T_{1/2} = -99$) **and** an abundance is then tagged as primordial. E.g. U238 is primordial (it has a defined half-life and an abundance), Ca40 is primordial (it has decay mode and abundance).

✓*Nuclide Explorer/Karlsruhe*: all primordial shall be drawn such as U238 i.e. with the upper part black and the lower part with its decay mode color

- for primordial, just put "Primordial" in the nuclide box instead "Stable/Primordial"
- if we select "Stable" only, the mini chart displays all nuclides as stable (black)
- Add the title "Nuclide Explorer" to the Nuclide Explorer page.

Search Nuclides & Advanced Search & Datasheet: for nuclides which are recognized as primordial – based on the previous definition- the “stable” label in the half-life field shall be replaced by “Primordial” when no half-life is available (i.e. $T_{1/2} = -99$): change in Material Table (Raymond)

- 4) Nuclide search & Advanced Search: Replace the “Stable” radiobutton label by “Stable/Primordial”. Selecting this option shall lead to displayed nuclides with “Stable” (pure stable, such as H1, He4), “Primordial” ($T_{1/2} = -99$ and having abundance & decay mode, e.g. Ca40) and “ $T_{1/2}$ ” (nuclides with $T_{1/2} > 0$ and abundance i.e. U238).

- Search: Stable/Primordial + Decay Mode (all): 17 results / 12 nuclides (ok)
- Search: Stable/Primordial - Decay Mode: 231 results / 226 nuclides but they are 287 nuclides with abundances; nuclides with half life are not displayed: this is wrong
- Advanced Search: Stable/Primordial + Decay Mode (all): 17/12 (ok)
- Advanced Search: Stable/Primordial - Decay Mode: 200/120 (wrong)
- Search β^- : Search returned 1473 results (ok) Number of nuclides: 1370 (wrong) in this case the number of nuclides is the same as the number of results.

→ Search β - isomers: Search returned 195 results (ok) Nuclides: 180 (wrong) in this case the number of nuclides is the same as the number of results.

- 5) ✓Nuclide search & Advanced Search: add a check box to the label “Decay Mode”. Checking this checkbox will enable (make appearing) the decay mode filter box and activate the filter options. If unchecked, there will be no decay mode filtering i.e. all decay mode will be allowed.

→ by default, the "decay mode" should be unchecked

- 6) All Searchable DB: all half life shall be given with regular unit i.e. “1 Py” shall be given as “1E15 y” and “1 as” shall be given as “1E-18 s” (Raymond will change the string field in the database).

- 7) ✓Radiation Search: wrong format for the given gamma/alpha line energies. Do not format those energies in scientific format but leave them as they appear in the DB.

→ Ordering through a column: leads the first time to a server error, a retry consume a lot of time (1m 23sec) for the full table, but works.

→ the same problem happens if we select another page from a previous ordered table

→ the default ordering should be on the energy (ascending)

→ The ordering column should remain highlighted if we select another page

→ Download: the nuclide field contains a lot of extra text and

→ the downloaded file reflects NOT the selected ordering

→ Print: only the currently selected page of the table can be printed

→ on the print page, put a title, a logo, and the selection criteria.

- 8) Radiation Search/Input box for the energy: add two extra input for energy so the user can make cross-search with a maximum of three energy lines (AND command).

→ has still to be done

8a) The gamma ray search should include both Gammas AND x-ray+annihilation. At present only gammas are search. Also change column header to read "Gamma and X-Rays (keV)".

8b) In the radiation search, change the text above the results table to "Number of nuclides (ground + isomeric states)"

8c) Radiation search: choose element Co and do a search (using Nucleonica DB).

Now change the DB to JEFF3.1 and do the same search. All the rows entries are duplicates.

8c) For all the searches (nuclide, Radiation, Advanced) we need a Reset button next to the Search, Save to my Defaults, and Print buttons

- 9) ✓Advanced Search: replace “Bg/g” by “Bq/g”

→ If we check all output columns: put long column headers in multiple lines in order to save space, but put data (e.g. half life) always in one line.

→ After a reordering, values are displayed in fixed point notation with lots of decimals: keep the original data format.

→ the unit of fission rate is missing: fissions/(g·s)

- 10) ✓In the Decay mode box the All alpha box is not working. Also not in the nuclide explorer.

→ but All Proton omits the β^+ , $p\alpha$ decay mode.

Portal:

11) ✓ Replace in Knowledge Centre “Article database” by “Reading room”. In addition, in the Wiki the category “Articles” shall be changed to “Reading Room”.

→ in Knowledge Centre, change the link from "Articles" to "Reading Room"

12) Wiki: replace the “nuclear” Logo in the Wiki main page with a Nucleonica logo.

→ has still to be done

Datasheet/Reference Data

13) Datasheet/Radiations: replace for Beta-Rays “Energy, E(keV)” by “End point, E(keV)”. It shall be done for both beta- and beta+ radiations (please note that the energy unit is keV (in the present version for the beta- radiation it is written MeV).

→ change also Energy x Emission Probability from MeV to keV (s. Y90)

→ and also in the print output.

→ Note that in 8th TOI this is correct, but not for Nucleonica.

→ Check also β^+ .

14) Datasheet/Radiations: no value in the branching **shall not** be indicated with zero!
To be discussed.

→ Example: Jean will supply this.

Nuclide Explorer

15) Nuclide Explorer: text in the filter decay box shall be closer to the checkboxes, such as in the searchable databases.

→ has still to be done

16) Nuclide Explorer: Previous bug still exists. When changing the size of the browser window, then using the browser cursors and trying to select a nuclide, the chart doesn't react anymore

→ has still to be done

17) Nuclide Explorer. Numbers of nuclides still incorrect. To be corrected based on Raymond's comments sent to Dialogika on the 25/06/07.

→ Main modes: alpha: wrong; β^- :ok; β^+ :wrong; IT: wrong; n: ok; SF: ok; p:ok ; ec: ok; but isomers are always wrong (mostly +2)

→ Filter decay mode: wrong (see Nuclear Data Retrieval)

18) ✓ Nuclide Explorer/Decay mode filter: “show all alpha” ain't working.

→ but "All proton" omits β^- , $p\alpha$

General

19) All tables (and in particular for the administration/users/date of registration): the ordering shall be in descending order i.e. the highest/latest on top. (except when otherwise specified)

20) All tables: when data are presented on several pages, ordering shall be done on all values and not only for the values of the displayed page. In addition, when going

to the previous or next page the chosen order shall be kept and not going back to default ordering.

→ and the ordering column should remain highlighted.

→ conserve the format of the displayed values (s. above Point 20.)

Administration

21) Alerts: free user alert still not working (i.e. messages should also appear as alerts).

→ has still to be done

22) ✓ Administration: the RDD module option shall be activated through a check-box not being a new group of user. All groups of user shall be able to access the RDD module if allowed in their profile. In the present configuration a platinum user cannot access the RDD module (only freeRDD or administrator). An “Options” frame shall be implemented in the user profile, where administrator can activate RDD module and further optional module to be implemented in the future. This “special module activation mode” is required.

→ since the RDD is a restricted access module, we must think about if it should appear or not on the application centre if it is disabled. (to be discussed in ITU)

23) ✓ User preferences: if the user checks the email alert and saves, it seems to be done but when coming back to the preferences, the email alert checkbox is always unchecked. Therefore the email alert isn't functioning.

→ the email alert still doesn't work

23a) In the free access, if the user wishes to upgrade he goes to the upgrade page with: Basic, Premium, Platinum. We need to add the prices here (it seems not to be clear to the users) i.e.

Basic €245/y

Premium €345/y

Platinum €445/y

23b) In the Pending Orders, we need to add a delete (dustbin) symbol after the edit pencil (otherwise we cannot delete and update requests)

Add also the date of the update request.

23c) when a user requests an upgrade, no alert is given to the administrator. The administrator only sees this request when he goes to the pending orders. Better an alert here.

23d) Google analytics is not working for the Nucleonica portal – only for the website.

23e) Question on the wiki: Is it possible to have a link in the wiki e.g. on Co60. On clicking this link the Nucleonica Datasheet for Co60 opens?

Calculator

24) Calculator: NaN problem remains. Example: $1E20 \rightarrow 1/x \rightarrow 1/x \rightarrow \text{NaN}$

→ but we can continue correct calculations with this NaN...

25) ~~Calculator: Constants shall be loaded from the DB. The same shall be implemented for the conversion factor (a new table shall be then created for the conversion factors in the DB).~~

→ but correct the wrong values: $J \leftrightarrow \text{MeV}$ and $\text{MeV} \leftrightarrow u$ (get the right value from the DB)

26) Calculator: when value is input in scientific notation than result value shall be as well displayed in scientific notation.

27) Calculator: input 1E2..... Displayed: 100,000000...004

Website

28) (proposal) We need an area in the website www.nucleonic.net to announce maintenance, upgrades, etc.

I would propose to put this directly above Nucleonica Hot Topics e.g.

Nucleonica Scheduled Maintenance...
Please note that for routine maintenance purposes, the Nucleonica portal will be unavailable on Mon 2 July 2007 from 13:00 until 15:00 hrs CET

We could also have a tab in the Administration where such messages can be posted. In addition, before an upgrade is made, Dialogika should post a message to all users that the service will be temporarily unavailable from time a until time b.

29) (proposal: if it can be done easily) We are constantly making changes to the Nucleonica Hot Topics. Would it not be better that this is a blog? This would allow easy editing and almost daily updating/commentating. At present Raymond has to do this manually

30) in the Free Access registration, we need an additional textbox for Job Position. Please underline this field and the Organisation field – both these should be compulsory

31) on the main page the link "About Us" does not work

32) insert new JRC logo on main page (ITU will supply this)

33) copyright European Commission 2006-2007

Upgrade:

1) Nuclide Explorer: if a user is downgraded to free, he shall have access only to the standard chart. At the present moment time, he keeps the last used chart theme. The only chart allowed for free users is the standard one.

→ has still to be done (is actually part of the free user package)

2) Nuclide Mixture: if we try to make a dosimetry calculation using the results of a decay calculation, we get an overflow error. It seems to occur because some of the decay products from the decay run have 0 activity/mass. Those shall be automatically removed from the new created Nuclide Mixture. Jean will investigate the problem.

Fission Yields

3) Fission Yields: user ordering is not kept when going to next page (see point 2 free users).

→ has still to be done

4) Fission Yields: Mass yield data: data shall be downloadable!

→ has still to be done

→ what function does the checkbox "Select all" have??

→ add a legend for the used letters (above the drop down comboboxes?):

S: Spontaneous fission

T: Thermal neutron induced fission

F: Fast neutron induced fission

H: High energy (14 MeV fusion neutrons) neutron induced fission

→ Advanced comparison: the rows under Cumulative Yields and Y(A) should be renamed to Error(C) and Error(A) like in the libraries tab

WebKORIGEN:

5) The results table looks terrible. Use similar format as the original VB program shall be used: one table with two columns for the top nuclides (Nuclides and Results), one for the top elements (Elements and Results), and one for the totals. All columns shall have the ordering feature.

6) The icon shall be change to a "reactor" icon.

7) Why is there a refresh and reload of the page every time one changes tabs? It seems that there is one unnecessary reload.

8) More to come...